

# Notice of Allowability

Application No.

10/635,344

Examiner

Rodney G. McDonald

Applicant(s)

DELAHOY ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final Amendment filed 2-6-07.
2. ☒ The allowed claim(s) is/are 1,3-5 and 7-54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 2-20-07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
RODNEY G. MCDONALD  
PRIMARY EXAMINER

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James Proscia on February 20, 2007.

The application has been amended as follows:

Cancel claim 2.

Claim 3, line 1, replace "non-laminarly" with "turbulently".

Claim 4, line 1, replace "non-laminarly" with "turbulently".

Claim 5, line 1, replace "non-laminarly" with "turbulently".

The following is an examiner's statement of reasons for allowance:

Claims 1, 3-5, 7-21 are allowable over the prior art of record because the prior art of record does not teach the claimed method for sputter coating including providing a channel for gas to flow through, the channel defined by a channel defining surface wherein one or more portions of the channel-defining surface include at least one target material and flowing gas through the channel wherein at least a portion of the gas is a turbulently flowing gas with a Reynolds number greater than 2000, the gas flowing from a manifold placed within the channel.

Claims 22-35 are allowable over the prior art of record because the prior art of record does not teach a method of depositing an oxide film on a substrate in a sputter

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coating reactor including providing a channel for a working gas to flow through, the channel defined by a channel-defining surface wherein one or more portions of the channel-defining surface include at least one target material and flowing the working gas through the channel wherein at least a portion of the working gas flows turbulently with a Reynolds number greater than 2000, the working gas flowing from a manifold placed within the channel.

Claims 36-46 are allowable over the prior art of record because the prior art of record does not teach a sputter-coating system for coating a substrate the sputter coating system including an electrode having a channel-defining surface that defines a channel wherein one or more portions of the channel-defining surface contains the at least one target material and a source of non-laminarly flowing working gas, the working gas flowing from a manifold placed within the channel such that at least a portion of the working gas flows turbulently with a Reynolds number greater than 2000.

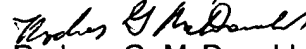
Claims 47-54 are allowable over the prior art of record because the prior art of record does not teach a method for depositing nitride film on a substrate in a sputter coating reactor including providing a channel for a working gas to flow through, the channel defined by a channel-defining surface wherein one or more portions of the channel-defining surface include at least one target material and flowing the working gas through the channel wherein at least a portion of the working gas flows turbulently with Reynolds number greater than 2000, the gas flowing from a manifold placed within the channel, the working gas flowing from a manifold placed within the channel.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Rodney G. McDonald  
Primary Examiner  
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RM  
February 20, 2007